

efficiently. The services of Mr. Fox especially have enabled me to devote much of my time to preparation for the centenary meeting and to the editing of the volumes commemorative of the celebration.

EDWARD J. NOLAN,  
*Librarian.*

---

### REPORT OF THE CURATORS.

The fire-proofing of the buildings, through the aid of the Commonwealth of Pennsylvania, has at last been completed. But few appreciate what this means, as our institution is fortunate in possessing the largest natural history library in this country, in addition to the museum, exceedingly rich in the type specimens of so much importance to science. The Entomological Department has been settled in its new quarters, which are said by the workers to fully meet their demands. This department is rapidly advancing along an economic path. The discoveries made in late years of the relationship between disease in animal life and insect life mean much in the universal battle now being waged against diseases in man, the ætiology of which has heretofore been surrounded by mystery.

The ornithological study collection has been moved back to its permanent quarters, where the specimens are kept in metal cases out of light and dust, while they are within very convenient reach of our investigators. It will be desirable to still further reduce the exhibit collection of our birds, as the many duplicates can better be preserved in storage cases and yet leave a sufficient number on exhibition to satisfy general educational purposes. The modern methods of mounting birds in their natural surroundings has been greatly extended in the local collection during the last year, and it supplies a good model for the rearrangement and extension of our general collection.

The Herbarium has been enlarged so that it will permit a more systematic arrangement of the botanical collections than has been heretofore possible.

The study collection of mollusks has been thoroughly arranged in the location provided for it two years ago and necessary cases for its expansion have been furnished. Detailed accounts of the work accomplished in these departments will be found in the sub-joined special reports.

Modern cases are much needed in the northern museum, which has been fire-proofed and much improved in arrangement. With financial help, this wing can be made one of the most attractive in the museum.

The indirect lighting system employed will enable us, during this coming year, to display our exhibits on certain evenings in the month, so that those engaged throughout the day may make their studies in the various divisions of natural history in which they are interested.

The William S. Vaux Collection of minerals is being moved into the old library hall, which will relieve the crowding in the archaeological collection and enable the Academy to exhibit the general mineral collection in near proximity.

Many valuable specimens have been added during the year. Several expeditions have been successfully conducted by our specialists, a rich harvest resulting from their research work.

Among the conspicuous and valuable accessions may be mentioned the mounted anthropoids and their respective skeletons, which have been added to the Dr. Thomas Biddle Collection. The new specimens were selected by Dr. Biddle to complete as nearly as possible the anthropoid family. The additions comprise a female and young gorilla, a large-eared chimpanzee, a young chimpanzee, and a baby orang-outang. Several rare monkeys and an *Ornithorhynchus* were also presented by Dr. Biddle.

Mr. Clarence B. Moore has continued his comprehensive investigations of the Indian mounds of the southern United States, resulting in the acquisition of many valuable specimens which make this collection one of the most complete of its kind ever brought together. Of special interest were two forms of pipes, one of the mono-ceramic and the other of the smoke-effigy type. A new type of grave was discovered on Red River, Arkansas.

The removal of the William S. Vaux Mineral Collection from the archaeological floor will provide Mr. Moore with additional room for the material recently obtained.

Among other expeditions may be mentioned one by Messrs. Alfred M. Collins and E. Marshall Scull to British East Africa, where they collected for the Academy a valuable series of large mammals, now being prepared for mounting. The proper arrangement of this collection will demand a new wing to our building. Among the most valuable mammals may be mentioned the greater and lesser kudu, eland, giraffe, zebra, buffalo, and a variety of antelopes, hyenas, etc.

A collection of sections of the trunks of native forest trees, comprising almost all the species found in the Middle States, was presented by Mr. C. H. Jennings.

Through the courtesy of the New York Botanical Garden, Mr. Stewardson Brown was enabled to accompany Dr. N. L. Britton, Director of the Garden, on an expedition to Bermuda, where he made collections which added materially to the Academy's series of the plants of the island.

Through the liberality of Mr. Morgan Hebard, Mr. Rehn was enabled to spend the summer months in Florida and Texas, where together they made large and valuable collections of Orthoptera, half of which becomes the property of the Academy.

In addition to the work described in the special reports appended, Dr. J. Percy Moore has continued his investigation of the annelids obtained in the Pacific Ocean by the United States Bureau of Fisheries. He has identified and named many parasites and other worms submitted to him for identification.

Mr. Henry W. Fowler continues in charge of the fishes and has also identified recent accessions of collections of reptiles and batrachians. He has made a study of the catostomoid fishes in the general collection and prepared a report on the fishes of the Chincoteague region, Virginia.

The archaeological collection is still under the care of Miss H. N. Wardle, who has identified and arranged the new specimens. A comprehensive catalogue of the department is in course of preparation.

The Curators are again under obligation to Messrs. S. S. VanPelt and Bayard Long for their continued work on the local collection of plants; to Mr. Morgan Hebard for the mounting of many entomological specimens, and to Dr. Amos P. Brown for the identification of several collections of invertebrate fossils forming part of the Isaac Lea Collection. This collection has for many years been under the care of the Rev. Leander T. Chamberlin, through whose generosity it has increased in extent and value from year to year. It is to be regretted that Dr. Chamberlin's ill health has compelled him to resign his honorary curatorship. The position has been filled by the appointment of Mr. Joseph Willcox.

Numerous local field trips have been taken by members of the museum staff, yielding valuable additions to the study series of fishes, reptiles, insects, mollusks, and plants.

One hundred and four storage cases and two hundred insect boxes have been purchased since our last report.

The museum is attracting a larger attendance of visitors than ever before, and many specialists throughout the country have made use of our study collections.

Specimens have been loaned to the following: Bryant Walker, L. A. Fuertes, Robert Ridgway, Paul Bartsch, K. A. Wiegand, Thomas Barbour, F. M. Chapman, L. A. Frierson, W. C. Bryant, H. H. Bartlett, E. W. Nelson, N. L. Britton, M. W. Lyon, C. W. Johnson, W. G. Mazyek, J. B. Henderson, J. A. Allen, J. C. Thompson, and J. O. Snyder.

SAMUEL G. DIXON,  
*Executive Curator.*

#### REPORT OF THE DEPARTMENT OF MOLLUSCA.

The growth of the collection during the year has been normal, accessions having been received from ninety persons and institutions. Considerable collections of local mollusks have been made by Mr. Bayard Long, who also contributed a large and valuable series from the Magdalen and Prince Edwards Islands. A large quantity of Canadian material from Lake Huron was presented by Mr. A. D. Robertson. A good deal of foreign material has come in from the Hawaiian Islands, Mexico, South Africa, etc.

Twenty new storage cases have been purchased, each holding sixteen large trays, adding almost 1,000 square feet to our storage space.

Work during the year has been chiefly devoted to the study of Hawaiian snails, but considerable time has been spent in working up material from Florida, the Rocky Mountains, and Mexico. In collaboration with Dr. Amos P. Brown, Eocene mollusks from North Carolina, and Oligocene material from the Canal zone have been studied. Papers have been published or prepared for publication on all of these topics.

Mr. E. G. Vanatta has assorted and determined a large amount of local and other American material. His work has been seriously retarded by illness. Acknowledgments are due Miss Winchester, artist of the department, for helpful services throughout the year.

H. A. PILSBRY,  
*Special Curator.*

#### REPORT OF CURATOR OF WILLIAM S. VAUX COLLECTIONS.

During the past year the principal accessions to the Wm. S. Vaux collection include a meteorite from South Africa, tourmaline, apatite,

stibiotantalite, neptuneite, and benitoite from California, glaucophane from Italy, struverite from South Dakota, tourmaline from Madagascar, and topaz from Texas.

F. J. KEELEY,  
*Curator.*

#### REPORT OF THE CUSTODIAN OF THE ISAAC LEA COLLECTION OF EOCENE MOLLUSCA.

During the present year some important additions have been made to the Isaac Lea Collection.

These specimens represent three widely separated localities. From the limestone quarry near Wilmington, North Carolina, immediately overlying the Cretaceous bed, the specimens were collected personally by the writer. The writer also collected the specimens from the Oligocene bed at White Beach on Little Sarasota Bay, Florida. This bed, representing a small outcrop, is located farther south than any other known Oligocene horizon in the United States.

The series of fossils from the Panama Canal zone were collected by Dr. Amos P. Brown, and is a notable addition to the Isaac Lea Collection.

Until the present time none of the above-mentioned localities have been represented in any of the collections of the Academy.

All of these specimens have been identified by Dr. H. A. Pilsbry and Dr. A. P. Brown.

A list of the species from White Beach will be found in the *Additions to the Museum*. The collections from Wilmington and from the Panama Canal zone, containing sixty or more new species, have already been described in the PROCEEDINGS of the Academy.

JOSEPH WILLCOX.

---

#### REPORTS OF THE SECTIONS.

##### BIOLOGICAL AND MICROSCOPICAL SECTION.

Nine regular and several informal meetings of the Section have been held with the usual attendance. While the membership has not increased during the year, the interest in microscopical work has not diminished, although the change of room, necessitating the removal and rearrangement of the books and collections, somewhat interfered with the programme of several meetings.